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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,147	02/08/2002	Martin Kling	J010-3464	8201
28752	7590	07/14/2005	EXAMINER	
LACKENBACH SIEGEL, LLP LACKENBACH SIEGEL BUILDING 1 CHASE ROAD SCARSDALE, NY 10583			MEI, XU	
			ART UNIT	PAPER NUMBER
			2644	

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/049,147

Applicant(s)

KLING, MARTIN

Examiner

Xu Mei

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11 and 12 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. This communication is responsive to the applicant's amendment dated 04/26/2005.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyano et al (US-5,828,763, hereafter, Koyano).

Regarding claim 1, 6-7 and 10, Koyano discloses a loudspeaker combination (embodiments of Figs. 1, 7, 13) including at least two loudspeakers having an all phase shifter 7 connected to the front of one of the loudspeaker for outputting or radiating low and medium frequency range signals. The characteristics of the all phase shifter are depending on the frequency of the signal that coupled also to the high pass

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filter (i.e., changing the phase shift characteristic according to the filtering output of the filter as claimed). What's not shown by Koyano is a low-pass frequency filter in one of the channel output.

Although Koyano shows the loudspeaker combination with the high pass frequency filter output instead of the low pass frequency filter output, it is old and very well known in the audio art to utilize different frequency filters for filtering different desired frequency output signals. To modify the loudspeaker combination taught by Koyano by including a low pass filter with the phase shifter for providing signal compensation with low frequency sound wave phase shift to reproducing an improved high fidelity sound field with both low and high frequency signal phase shift compensation would have been obvious to one of ordinary skilled in the art.

Regarding claims 2-5, the loudspeakers of Koyano radiate full frequency range of signal that including medium frequency range and is of the same structure type and form of loudspeakers.

Response to Arguments

4. Applicant's arguments filed 04/26/2005 have been fully considered but they are not persuasive.

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Applicant mainly argued "the inventions of Koyano et al are different and there is no discussion or suggestion in Koyano to suggest the instant claimed invention" is noted; however, the Examiner disagreed. In response to applicant's argument that "the inventions of Koyano et al are different and there is no discussion or suggestion in Koyano to suggest the instant claimed invention", the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). In this instant case, to utilize or modify the teaching of Koyano by including low frequency audio signal processing (i.e., low pass filtering of audio signals) to provide signal compensation with low frequency sound wave phase shift to reproducing an improved high fidelity sound field with both low and high frequency signal phase shift compensation would have been obvious to one of ordinary skilled in the art. Furthermore, Koyano in col. 4, lines 8-15 discloses signals phase shift increases as frequency increases within low frequency range for audio signal. Therefore, it would have been obvious to one of ordinary skill in the art to compensate the phase shift of higher frequency audio signals with the low

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frequency audio signals by implementing a low pass filter for the loudspeaker system of Koyano.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., speaker membranes or vibrating surface areas) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

As these are the totality of arguments presented, and they have been found unpersuasive, the existing rejection is deemed appropriate.

Allowable Subject Matter

5. Claims 11-12 are allowed over prior art of record.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Miller and Kendall et al disclose various audio signals processing devices having phase shifting circuits for improving audio signals reproduction.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xu Mei whose telephone number is 571-272-7523. The examiner can normally be reached on Monday-Friday (9:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Xu Mei
Primary Examiner
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07/09/2005